The Seven Seals of Judeo-Islamic Magic: Possible Origins of the Symbols

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The Seven Seals of medieval Islamic magic, which are believed to constitute the Greatest Name of God, also feature in Jewish Kabbalah from the same period. While many Seal symbols make sporadic appearances in early Islamic amulets bearing Kufic script, the source of the symbols and their eventual ordering remains a matter of legend. As this topic was first – and last – examined systematically by Dr. Hans Winkler in 1930, a wider-ranging and more modern review is long overdue. The present survey focuses on potential sources for the symbols rather than on their exegesis. It first examines the possibility that a precedent for the Seal series exists in an undecipherable "seven signs repeated seven times" inscribed on a Late Babylonian amulet. It then considers the possibility that the Seals' origins lie in other cuneiform symbols from ancient Mesopotamia; in Egyptian hieroglyphs or scripts; in paleo-Hebrew characters or the letters of ancient South Arabian scripts; in Libyco-Berber or Tifinagh letters from North Africa; or in the symbol repertoire of Late Antique magic, including the highly potent seven Greek vowels. The review also explores the possibility that at least some of the symbols originated in numerological ciphers or religious emblems, canvassing sources as diverse as Indian Hinduism and Byzantine Christendom. The article concludes by considering the recent suggestion that the Seal series may have acquired its privileged status because its symbols reflect "shape archetypes" that are hard-wired into the human nervous system.

Introduction

Two of the most striking graphic features of Islamic grimoires and amulets are the inclusion of *charakteres* (i.e., the spectacle-letters, *lunette sigla* or *brillenbuchstaben* of Late Antique magic)[1,2,3] and – from the 13th century CE onwards – the presence of the distinctive symbol series known as the Seven Seals, which is believed to constitute the Greatest Name of God (Fig. 1a).[4,5,6] Accordingly, these two sets of glyphs form the focal points of Dr. Hans Winkler's major survey *Siegel und Charaktere in der Mohammedanischen Zauberei*, first published in 1930 CE.[7] In it Winkler posits an origin for the *charakteres* in cuneiform,[8] and contrasts their global diffusion after the decline of the Assyro-Babylonian culture with the much later appearance of the Seven Seals, which – in his view – united elements of Judaism, Christianity and Islam, but were nevertheless restricted to the Muslim world of the second millennium CE.[9]

Charaktere glyphs and the Seven Seals also co-appear in Jewish Kabbalah, where the latter symbols (Fig. 1b) again date back to the late 13th/early 14th century CE.[10,11] No prior or external source has been recognized thus far for the Kabbalistic Seven Seals, beyond the obvious possibility of their recruitment from the Islamic magic[12] of the same region and era. It remains unclear as to whether the symbols were borrowed by Judaism from Islam or *vice versa*; indeed, this may prove to be a question without a

Fig. 1. The Judeo-Islamic seven Seals. All series read from right to left, and the Seals are numbered accordingly. **(a)** Islamic Seal series, in both the 8- and 7-symbol forms. **(b)** Jewish seven Seals. These are representative composites, reproduced with permission.[13]

meaningful answer. Speaking of the 9th to 12th centuries CE, Steven Wasserstrom observes that "the 'creative symbiosis' between Muslim and Jew extended deeply into the magical realm."[14] Thus early components of the Seal symbol repertoire – and later the emerging series as a whole – may have trafficked repeatedly between the two cultures, all the while continuing to evolve.[15]

As a point of origin it is tempting to propose an underlying set of symbols, foreign to both cultures,[16] which subsequently became assimilated into the medieval Semitic world. The alphabets at hand would have been recruited to this task.[17] Thus Kabbalah texts often use Hebrew letters to approximate the shape of certain Seals (e.g., a *samekh* shape for the 1st and 6th Seal; three and four *vav* for the 2nd and 5th, respectively; a *zayin* for the 3rd, and a reversed final-*mem* for the 7th),[18] while Islamic sources have long identified the various Seals with particular Arabic letters (e.g., the 1st Seal as an isolated *hāʾ*, the 2nd as three *ʾalifs*, the 3rd as a mutilated *mīm*, the 5th as four *ʾalifs*, the 6th as a split-*hāʾ*, and the 7th as an inverted *wāw*).[19] Where a given Seal is associated with both a Hebrew and an Arabic letter, the two are not linguistic cognates; it is their shapes rather than their sounds that matter.

Kufic amulets – early appearances of the Seal repertoire

Representations of the Seven Seals in a near-final form appear on the Islamic amulets of the type catalogued by W.M. Flinders Petrie as Egyptian slate/siltstone pendants bearing Kufic or Kufic-like inscriptions, which are attributed to the Islamic era (640-1510 CE) without further temporal refinement.[20] Some amulets of this type contain nearly all of the Seal symbols in their conventional shapes, although the collection is not yet arranged in a linear fashion and there is no sense of any sequential order.[21] Good examples include the slate amulets shown in Fig. 2.[22,23] It is interesting to see that non-Seal symbols are also present. Winkler is tempted to see some of these additional characters as Hebrew letters, but his identification is far from convincing.[24] Consistent with his proposal, however, is the appearance of the 7th Seal as a clockwise spiral, as found in some Jewish series.[25] If viewed as Arabic letters, the style of both this and the 6th Seal (the inverted *wāw* and split-*hāʾ*, respectively) on the slate amulets is archaic.[26] Unlike the Jewish series, though,

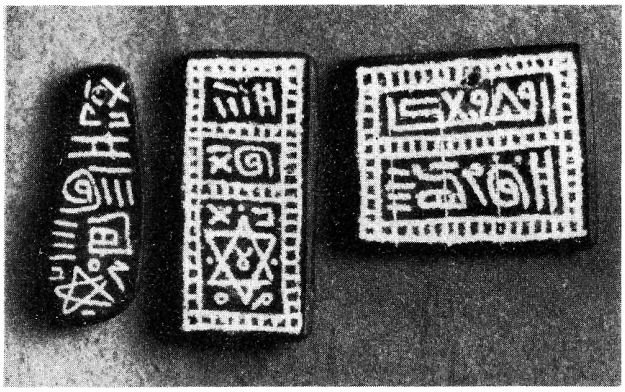

Fig. 2. Islamic slate amulets bearing Kufic inscriptions. These examples contain nearly all of the Seal symbols in their conventional shapes, although the collection is not yet arranged in a linear sequence and non-Seal symbols are also present. Reproduced from Hans A. Winkler, 1930, *Siegel und Charaktere in der Mohammedanischen Zauberei* (Table 1 items 5-7, facing p.80) by kind permission of the publisher,[27] Walter de Gruyter & Co., who retains copyright in the image. Photo © Verlag Walter de Gruyter GmbH & Co. K.G., Berlin.

many of the slate amulets contain pentagrams or hexagrams, both of which are common embodiments of the first Seal in the standard Islamic sequence.

The traditional Arabic description of the Seven Seals is attributed to ʿAlī ibn Abī Ṭālib (7th century CE), cousin and son-in-law of the Prophet Muḥammad, who is said to have discovered the Seal series inscribed on a rock or stone.[28] In contrast to the progressive evolution suggested by the Kufic amulets, tradition holds that the Seals were found by ʿAlī already in their correct order. Many slight variants of ʿAlī's description exist, including an early one that preserves a somewhat different symbol sequence,[29,30,31] but the version enshrined in the *Shams al-Maʿārif* of Aḥmad ibn ʿAlī ibn Yūsuf al-Būnī (d. 1225 CE) rapidly established itself as the canonical account:[32,33,34,35,36]

> Three rods[37] positioned after a seal,[38]
> Above their heads, something like a straightened lance;[39]
> And a *mīm*, blind and maimed,[40] then a ladder
> To all that is hoped for,[41] yet it is not a ladder.
> And four objects like fingers lined up[42]
> Pointing to good deeds, but without the rest of the hand.
> Then a divided *hāʾ*,[43] and an upside-down *wāw*[44]
> Like the siphon tube of a blood-letter, nevertheless it is not a cupping-glass.
> This is the name of Allāh, praised for its supreme power,
> If you did not know it before, know it now.

The wording of the description is certainly consistent with the idea (raised in the Introduction) that its author was struggling to describe foreign symbols in terms of shapes familiar to himself and his intended audience. The intriguing question, of course, is "From what source(s) were the various symbols taken?"

A cuneiform amulet with "seven signs"

Prior to the representations on Kufic amulets discussed in the previous section, there are no extant items featuring the Seal symbols as an ensemble, much less as a specific sequence. It is therefore of considerable interest to note the existence of a Late Babylonian/Neo-Assyrian black stone amulet (6-10th century BCE) which commences with "seven signs repeated seven times," accompanied by a Sumerian inscription intended to protect against ghosts.[45] While Sumerian ceased to spoken around the beginning of the 2nd millennium BCE, it continued to be used as a sacred, ceremonial, literary and scientific language in Mesopotamia until as late as the 1st century CE.[46] Parts of the inscription on the Babylonian amulet – including, it would seem, the seven signs – defy translation and are dismissed by the curatorial annotation as "mumbo-jumbo." Some of these signs reappear in isolation later in the inscription. Viewed in the correct orientation (Fig. 3a), the repeated symbols are interesting but largely cryptic. However, if the amulet is rotated clockwise by 90' (Fig. 3b), as a Hebrew or Arabic reader might do in order to read the symbol series from right to left (i.e., from first to seventh glyph), the sequence of characters assumes a somewhat familiar appearance.

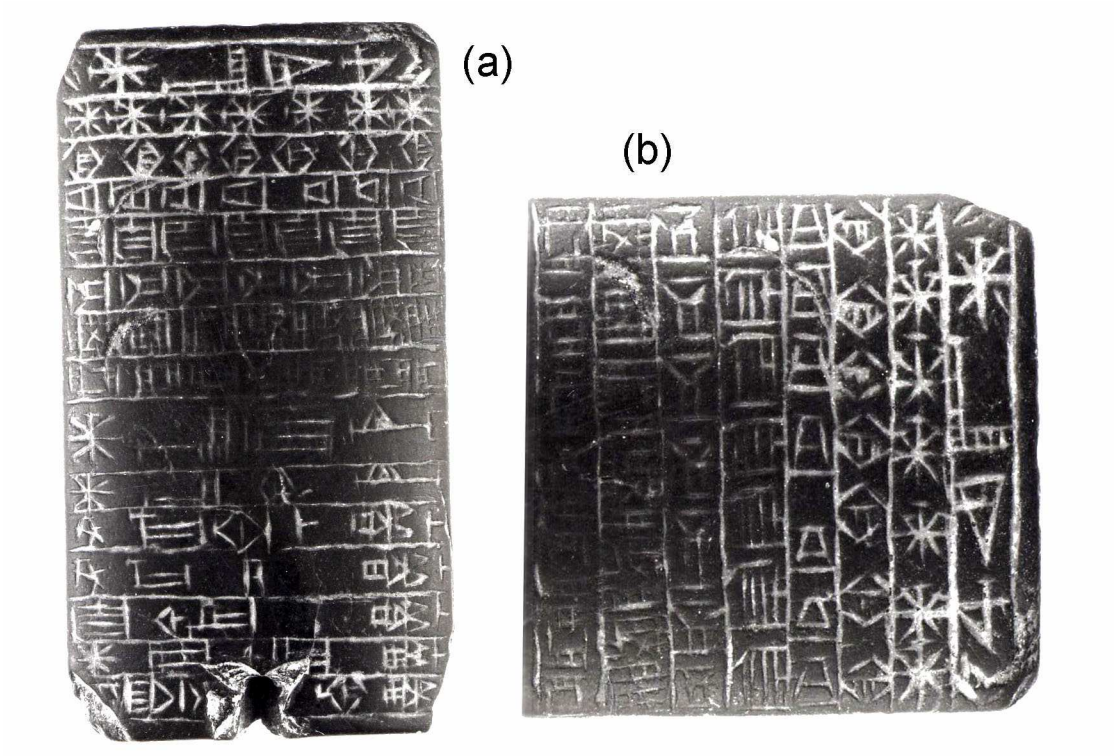

Fig. 3. Late Babylonian black stone amulet. The amulet (C6-10th BCE) carries a protective Sumerian inscription which is prefaced by seven signs repeated seven times. **(a)** The whole amulet in its original orientation. **(b)** Magnified portion containing the 7 x 7 signs rotated a quarter turn clockwise, the natural orientation for someone wishing to read the symbol series from right to left (as would be expected of someone from a Semitic language group). Images: AN1068462001 © Trustees of the British Museum, reproduced with gratitude under the Museum's Standard Terms of Use. Object Dept.: Middle East; Registration No.: 1919,0712.614; BM/Big No.: 113865.

The first of the seven signs on the amulet is an eight-pointed asterisk. George Rawlinson's survey of ancient Eastern culture remarks that in Chaldea "the 'determinative' of a god—the sign, that is, which marks that the name of a god is about to follow, in […] early rectilinear writing is an eight-rayed star. The archaic cuneiform keeps closely to this type, merely changing the lines into wedges."[47] More recent experts concur that the eight-pointed asterisk (*An*, meaning "sky" or "heaven") is routinely used to introduce the name of a god,[48,49] although a dissenting view considers it to be a solar symbol.[50,51] Both identifications[52] support the correspondence with the Islamic Seven Seals suggested in Fig. 3, in that the first Seal commences a Divine Name – indeed, the Greatest Name of God – while the planet traditionally assigned to the this Seal is the sun, making it a solar token.

Between the two chevrons (< >) of the second Babylonian symbol is a sign resembling the three-strokes-with-overbar of the 2nd Seal. The two chevrons have approximate counterparts in some Jewish depictions of the 3rd Seal (Fig. 4, top line), while the left- hand one could be a simplified form of the mutilated *mīm* that forms the 3rd Seal in Islamic series, and which is otherwise absent (Fig. 4, third line). The 3rd and 4th symbols are fairly close matches for the multi-runged ladder of the 4th Seal and the four strokes of the 5th Seal, respectively; on the amulet, the latter has the overbar seen

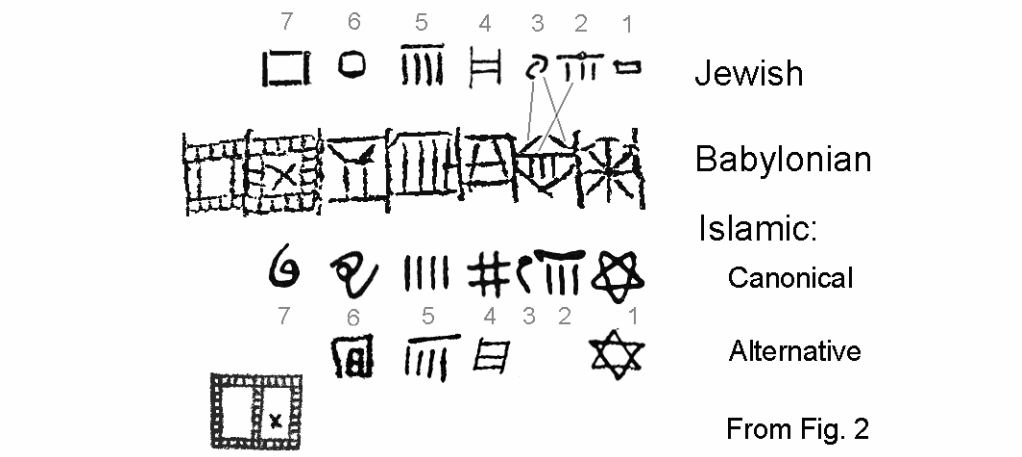

Fig. 4. Resemblance of the Babylonian symbol series to the Judeo-Islamic seven Seals. The Babylonian symbols (2nd row of symbols) correspond to the amulet orientation of Fig. 3b. The Jewish series (top row of symbols) is a different composite from that in Fig. 1b; Seal symbols 1-4 co-appear in *Shoshan Yesod Olam*,[53] symbol 5 in Moscow-Günzburg 775,[54] and symbols 6-7 in *Toldot Adam*.[55] The canonical Islamic Seal series (3rd row of symbols) is the 7-symbol version from Fig. 1a, with adjusted spacing and rotations of the 3rd and 6th Seals. Alternative forms of some Islamic Seal symbols are also shown (4th row of symbols). For the 1st Seal, a hexagram commonly replaces the pentagram;[56] this three-runged version of the 4th Seal's "ladder" appears *inter alia* in a C15th CE manuscript copy of the *Shams al-Maʿārif*;[57] the over-bar version of the 5th Seal is from the *Dīwān of ʿAlī* (Brit. Mus. 577 Add. 7534); and the 6th Seal is taken from Fig. 2a. The symbol in the bottom row is a drawing of the top portion of the amulet in Fig. 2b, after a quarter turn rotation anti-clockwise and the omission of non-cognate symbols.

in some Jewish series (Fig. 4, top line). Thereafter, the correspondence becomes more tenuous. The rectangular shape of the 7th Seal in some Jewish series matches the overall square outlines of the last two Babylonian symbols. More curious is that their conjoint appearance as a double box with chequered borders is a close match for the boundary markings on two of the three kufic amulets in Fig. 2, which – although they do not contribute directly to the symbol series – nevertheless serve to contain and partition the Seals.

The seven symbols may relate to the seven gods or seven demons of Mesopotamian religion, both of which were invoked in magical spells.[58] The "seven gods who decreed fate" (An, Enlil, Enki, Nanna, Inanna, Utu, Ninhursag) were senior to the more numerous *annunaki*.[59] The *sibitti* were seven demons who served as the destructive weapons of the god Erra/Nergal,[60] a member of the *annunaki*.[61] The *sibitti* were sometimes identified as *utukku* (evil demons) and at other times associated with the *annunaki* in the latter's role as judges of the underworld.[62,63] Both sets of seven appear to have been identified with the seven members of the Pleiades star cluster,[64,65] which is interesting in view of recent hints that the Seven Seals of Islamic magic may also have been linked with the Pleiades.[66]

There are examples where ancient Mesopotamian magical practices attested in cuneiform tablets receive mention in the Hebrew Bible, with awareness of these rites persisting into Jewish and indeed Muslim documents of the 10th to 14th centuries CE.[67] In line with such precedents, some contemporary practitioners of Arabic magic claim (without providing any details) that the Seven Seals appeared on magical amulets in Babylon.[68] With the Seals, it is not even necessary to propose any continuity of understanding of the symbols in their hypothetical journey from ancient Mesopotamia to medieval Islam. The chance re-discovery of an ancient amulet such as the cuneiform tablet of Fig. 3 in the 11th century CE could have proved sufficient for repeated symbols of this type to be recognised as magically potent and for their use to be reprised in contemporary talismans.[69] Indeed, such an event would accord with the Islamic story of their origin inscribed on a stone that was discovered by ʿAlī ibn Abī Ṭālib, as described in the Introduction.

The presentation of seven-fold repeats of the seven Babylonian symbols in an array (Fig. 3) is of course reminiscent of the 7 x 7 matrices (Fig. 5a) or 8 x 8 matrices (Fig. 5b) commonly used to multiply the efficacy of the Seven Seals in talismanic contexts, although in arrays of the Seals there is usually a progressive offset between the characters in each row (e.g., Fig. 5a,b).[70] Readers who object to the rotation of the characters (Fig. 3b) should recall that all Sumerian cuneiform characters were rotated 90° anti-clockwise at the time when the writing direction changed from vertical to horizontal (between 3000 BCE and 2800 BCE);[71] in consequence, the counter-rotations implemented in Fig. 3b can be viewed as a restitution of the "Seven Sumerian Seals" to the orientations they would have had if they were written in the original form of the script.

There are other similarities between cuneiform and the Seal symbol repertoire. A symbol which closely resembles the second Seal is found repeatedly on Schøyen

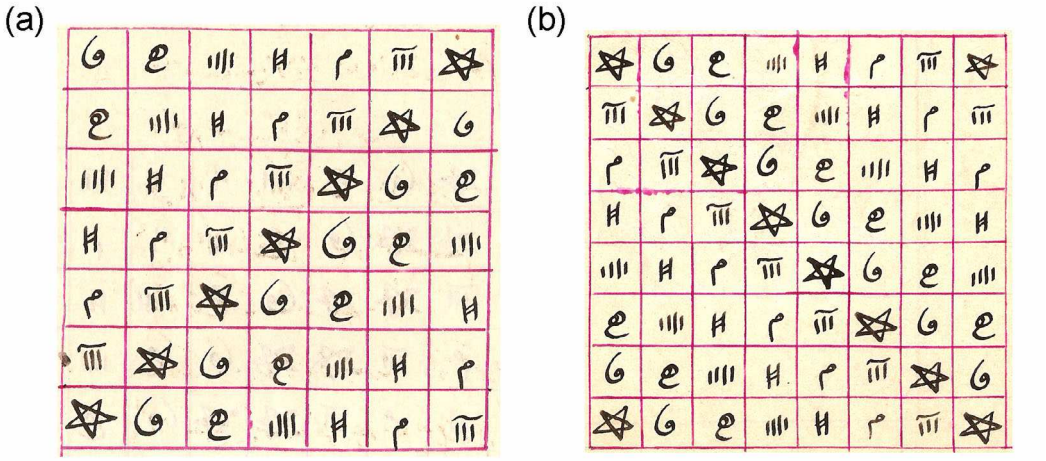

Fig. 5. Magic squares with 7 x 7 matrices of the Islamic seven Seals. **(a)** From top to bottom, each succeeding row is offset one cell to the left. **(b)** From top to bottom, each succeeding row is offset one cell to the right. Both designs are taken from a C19th CE Ottoman manuscript book.[72]

Collection MS 2779, a Babylonian amulet of red jasper bearing a cuneiform inscription against Lamashtu,[73] a demon with seven names (Fig. 6a).[74] Like the black stone amulet of Fig. 3, this item is dated to the 6-10th century BCE. Another cuneiform glyph which closely resembles the second Seal is the sign for the vowel "A" in Old Persian (Fig. 6b);[75] this symbol features prominently in Achaemenid stelae from the 6th to the 4th centuries BCE.[76] Other instances of a close resemblance between the second Seal and a character from a Near Eastern alphabet or other relevant symbol system will be presented in the next section.

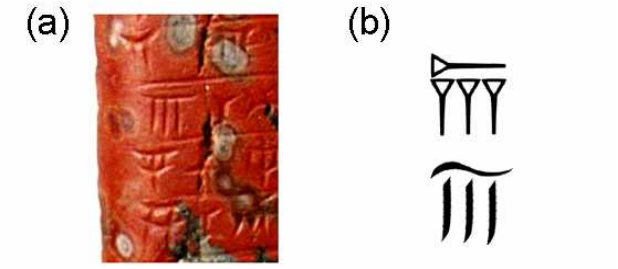

Fig. 6. Similarities between cuneiform symbols and the second Seal. **(a)** Detail of a red jasper amulet, Babylonia, (C6-10th BCE), showing part of its Babylonian inscription against the demon Lamashtu. © The Schøyen Collection, MS 2779, http://www.schoyencollection.com/magical.html, reproduced by kind permission of Martin Schøyen. In the portion of the cuneiform inscription shown here, the top row (at right) and the 2nd row (at left) contains a symbol that resembles the 2nd Seal. **(b)** Cuneiform sign for the vowel "A" in Old Persian, common in stelae of C6- 4th BCE (upper), juxtaposed with the 2nd Seal (lower).

Egyptian hieratic, Paleo-Hebrew and South Arabian scripts

As we shall see in this section, it is possible to select characters from within specific writing systems and alphabets in the Egyptian and Semitic branches of the Afroasiatic language group to produce a simulacrum of the Seven Seals.

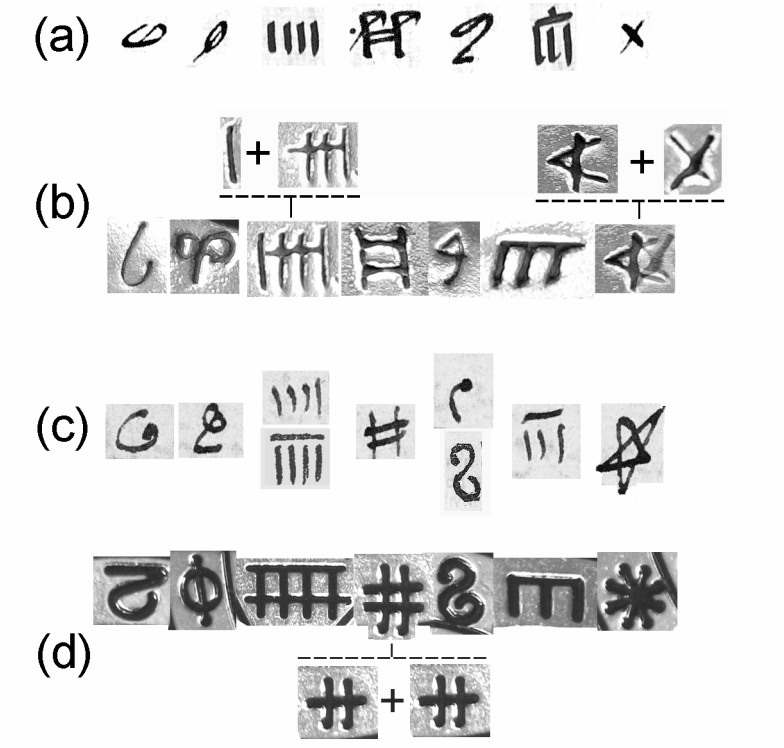

Fig. 7. Other possible precursors of the Islamic Seal symbols. (a) The Ebers Papyrus**,** an Egyptian medical text of *ca*.1550 BCE written in hieratic script. Most of these symbols are common, all being taken from a single page of the 110-page work.[77] **(b)** Paleo-Hebrew (C10th BCE to C2nd CE) letters, as reproduced on modern silver Kabbalah pendants, arranged here to simulate the seven Seals. Letters are identified in the text. For *het*, the amulets appear to use a non-standard two-pronged "ladder" (as shown) rather than the canonical three-pronged form; either version gives a satisfactory approximation of the 4th Seal. **(c)** For reference, a standard Islamic Seal series is shown, with Jewish variants of the 3rd and 5th seals (as seen in *Toldot Adam*[78] and Moscow-Günzburg 775,[79] respectively) placed below the Islamic ones. **(d)** Symbols from a contemporary silver replica of the Pergamon "Prognostikon," a Greek inscribed bronze divination disc from the C3rd CE. In (b) and (d), it was occasionally necessary to combine two symbols (shown separated by a "+") to approximate the relevant Seal symbol.

Egyptian hieroglyphs place three vertical strokes under the determinative to indicate a plural, thus in many instances creating a glyph resembling the 2nd Seal.[80] Four vertical strokes were used in isolation to indicate the number four, thereby approximating the 5th Seal.[81] The later Egyptian hieratic script, which was used from 3200 BCE to the 3rd century CE, contains many Seal-like symbols. Fig. 7a shows a Seal series approximated using characters from the Ebers Papyrus, a hieratic Egyptian medical text of ca.1550 BCE; most of these symbols are common, all being taken from a single page of the 110-page

work.[82] Fittingly, the very concept of a "Most Great Name of God" – a Word of Power so potent that it can not be spoken or even thought – is considered by some to have ancient Egyptian roots.[83] On the role of the Divine Symbol or Name in later Neoplatonism (3rd-4th centuries CE), which to some extent inherited ancient Egyptian theological doctrines, we read that "the mysterious power of the unspeakable symbols allow[s] us to re-establish the theurgic union with the gods […] The secret names of the gods are anagogic symbols […] The symbol as hieroglyph (the visible shape of the invisible Platonic Form), as gnostic password and word of power (*heka*), is inseparable from the Egyptian ways of thought."[84] Another author describes the magical *charakteres* of late antiquity, whose genesis may lie in hieroglyphs,[85] as "the ineffable representation of 'the act-filled sounds' of the Egyptian language, the strictly logographic correlates of the 'names' in Graeco-Egyptian ritual magic" […] "[T]hey trigger divine presence, they do not symbolise it."[86] The Seven Seals fall naturally into the same ontological category.[87]

Others claim a Jewish origin for the concept of a "Greatest Name of God."[88,89] In view of this, it is interesting to note that a selection of paleo-Hebrew letters (10th century BCE to 2nd century CE) can be arranged to simulate the Seven Seals. Thus the pentagram version of the 1st Seal can be formed from a paleo-Hebrew *aleph* and *tav*; the 2nd Seal by a quarter-turn of a *he*, the 3rd Seal by a *dalet* or *resh*, the 4th Seal by a *het*, the 5th Seal by a quarter-turn of a *samekh* with an extra stroke; the 6th Seal by a *qoph*; and the 7th Seal by a *lamed* (Fig. 7b).

In contrast, others locate the Seals' origins in Arabia. For example, al-Būnī states that the seven Seals were originally engraved on the entrance to the Kaʿbah in Mecca,[90] thereby potentially linking them to pre-Islamic worship at the site; however, his claim is generally considered fanciful. Heinrich Ewald took the reference to the Seals' first discovery by ʿAlī on an "engraved rock" to mean that their origins lay in a Himyarite inscription,[91] which would have employed the Epigraphic South Arabian script (9th century BCE to 7th century CE).[92] Although one letter of this script (a ladder-shape encoding a *d*-sound) resembles the 4th Seal and another (a vertically cleft circle encoding a *w*-sound) resembles the 6th Seal, it is not easy to approximate the complete Seal series using South Arabian *musnad* (i.e., monumental) characters.[93] Winkler comments explicitly on a symbol pair seen frequently on South Arabian monuments, resembling (right) a Y-shape like a tuning-fork or sling-shot with narrow forks, and (left) a "ladder" with two rungs.[94] These have been identified, respectively, as "lightning bolt" and "double-handle,"[95] and have been interpreted as symbols of the Divine,[96] although they may simply be *musnad* letters specifying *h*- and *d*-sounds, respectively. Winkler proposes that these symbols may underpin the Islamic 3rd and 4th Seals, respectively. Despite this addendum, though, it seems that only three of the seven Seals have potential counterparts in the South Arabian symbol repertoire.

This is not the first time that a South Arabian origin has been proposed for the Seven Seals, insofar as Denis MacEoin has suggested their possible derivation from Lihyanite, Thamudic or Safaitic, or alternatively from the Berber script known as Tifinagh.[97] Tifinagh is the oldest alphabet in North Africa, and is still in use by the Tuareg of today.[98] The possibility of a Berber origin for the Seals will be addressed in the next section.

Libyco-Berber and Tifinagh symbols

The Berber languages form another branch of the Afroasiatic language group. The shapes of many symbols in the Seal repertoire have counterparts in the alphabets of Libyco-Berber and of its more modern descendant, Tifinagh, all of which are dominated by

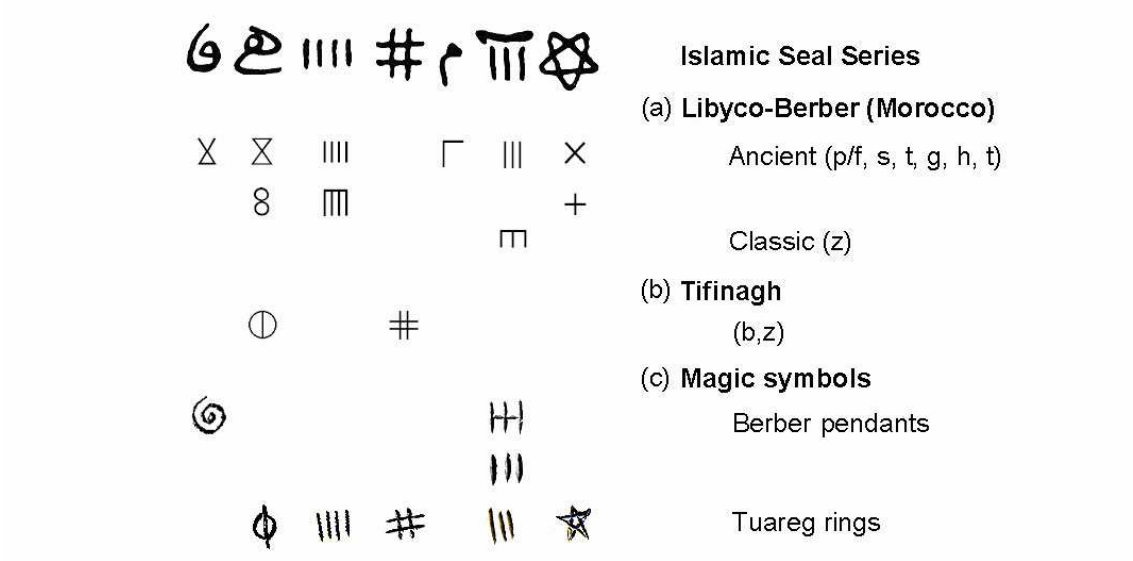

Fig. 8. Libyco-Berber and Tifinagh letters, with Berber/Tuareg magic symbols. The African letters and symbols are presented in alignment with the seven Seals (top row). **(a)** Selected letters from the ancient and classic forms of Moroccan Libyco-Berber, oriented as found in vertical inscriptions (see text);[99] the corresponding English letters are given at right. **(b)** Selected letters from the Tifinagh alphabet of the Tuareg,[100] with English equivalents letters again at right. **(c)** Magic symbols from Berber and Tuareg silver talismans (rings, pendants, etc.).

simple rectilinear and line/circle motifs (Fig. 8a,b). Indeed, this lineage provides one of the better selections of possible precursors for the complete set of Seal symbols. The ancient Libyco-Berber rock inscriptions of Morocco probably date from the 7th/6th century BCE, with most North African monumental and grave inscriptions written between the 4th century BCE and the 4th century CE.[101] Such inscriptions would have appeared alluring yet inscrutable to Arab and other travellers in the 12-13th centuries CE, the era in which the Seven Seals emerged to public view.

Recalling Ewald's interpretation of the Seals as a Himyarite inscription, it is interesting to note that scholars who postulate a non-indigenous and non-Phoenician origin for Libyco-Berber consider it likely to have evolved from the central or south Semitic languages, especially Thamudic or Himyaritic.[102] A potential problem with the proposal of a Libyco-Berber origin for the Seal symbols is that of symbol orientation. Specifically, the Libyco-Berber symbols in Fig.8a are orientated as they would be found in vertical inscriptions, such as those in Morocco, which are read from bottom to top; for a horizontal inscription reading right to left, such as the Libyco-Berber inscriptions at

Dougga (Tunisia) or the standard Seal series, some of the letters would be rotated 90° anti-clockwise.[103] Thus, like symbols on the black Babylonian amulet (Fig. 3), some of the Libyco-Berber characters – notably those corresponding to the 2nd and 5th Seals – would have to undergo a clockwise quarter-turn from their found orientation in order to match the Seal symbols, unless one is willing to pick and choose from different regional variants of the Libyco-Berber alphabet.[104]

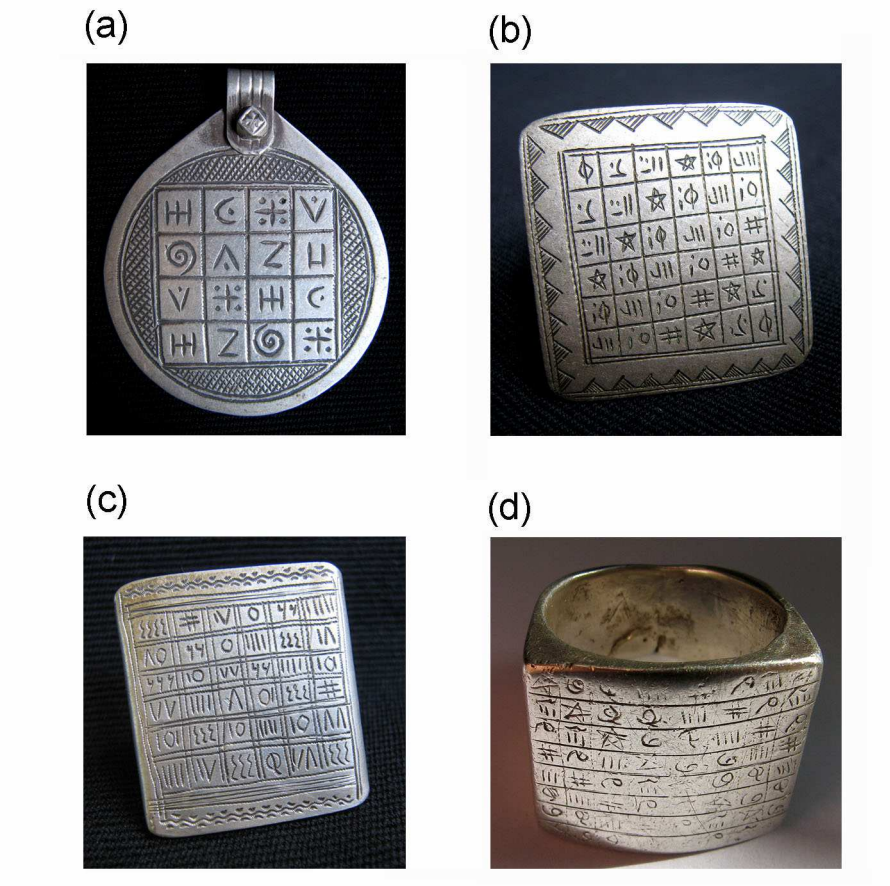

Fig. 9. Berber pendants and Tuareg rings bearing Seal symbols. Four items of silver jewelry with "magic square" inscriptions. **(a)** Berber pendant from North Africa, whose 4 x 4 matrix contains rectilinear symbols (||| with —) and clockwise spirals, reminiscent of the 2nd and 7th Seals, respectively. **(b)** Tuareg shield ring from Mali, whose 6 x 6 matrix contains symbols corresponding to the 1st, 4th and 6th Seals (pentagram, #, and ϕ, respectively). Its other cells contain symbols that resemble Arabic letters. **(c)** Tuareg shield ring from Niger or Mali , whose 6 x 6 matrix contains symbols corresponding to the 4th, 5th and 6th Seals (#, |||| and ϕ, respectively). Its other cells contain Arabic numbers. Although absent from this example, the 2nd Seal (|||) often appears in magic squares from this family. **(d)** Tuareg shield ring from Mali, whose 8 x 8 matrix contains repeats of the 8-symbol version of the seven Seal series, with each succeeding row offset once cell to the right (analogous to Fig. 5b). This ring design is much less common than the types shown in panels (b) and (c), which bear unique symbol patterns formulated specifically by the *marabout* to address the individual needs of his client.[105]

One direct link between the Seven Seals and the Berber people – especially the Tuareg – is the presence of Seal symbols in the "magic squares" inscribed on their

antique and contemporary talismans, such as silver pendants and rings (Fig. 8c and Fig. 9). Various possibilities attend the presence of multiple Seal symbols in Tuareg rings alongside other magic symbols, Arabic numbers, Arabic letters, and perhaps Tifinagh letters (Fig. 9b,c).[106] It is possible that (i) some Seal symbols originated and survived independently in Berber alphabets, later being supplemented by foreign characters (such as the pentagram) with which they are linked in Arabic magic, or (ii) some Seals originated in Berber alphabets but were lost from this repertoire, later being re-imported from Arabic magic along with other Seal characters, or (iii) all of the Seal symbols in Tuareg talismans were imported *de novo* from Arabic magic, perhaps relatively recently. In the last two options, the Tifinagh-like nature of so many Seal characters would underpin the ready adoption (or re-adoption) and enduring popularity of these symbols in the Tuareg repertoire of talismanic symbols. Jean Gabus observes that the "magic square" designs are devised by the *marabouts* (religious leaders/teachers/healers) who use letter and number magic to address the specific needs of the client, and claims that the symbols are not understood by the artisans who actually make the amulets.[107] Others hold the *inadan* (Tuareg metalworkers and smiths) in much higher esteem, attributing to them considerable spiritual power and symbolic knowledge.[108,109] The Seal series as an ensemble is clearly known to Tuareg *marabouts* and *inadan* (Fig. 9d), although they do not often use it in its undiluted form.

The Pergamon "Prognostikon"

The "Prognostikon" is an inscribed bronze disc from a divination kit of the 3rd century CE. It was discovered in 1899 in the ruins of the Greek city of Pergamon,[110] situated in modern-day Turkey, and is currently housed in the Staatliche Museen of Berlin. It was found alongside other magical items, including three inscribed black stones and various inscribed bronze objects.[111] The disc is 12 cm in diameter; the top surface (which bears the inscriptions) is flat, but the underside is convex (maximum thickness 1 cm). The disc is divided into four concentric rings which are segmented radially, such that all rings have 8 segments apiece. Although the radial divisions of the three outer rings are aligned, the segmentation of the central region is different.

The concentric circles of the inscribed disc are filled with magic characters, Egyptian hieroglyphs, planetary symbols, and so on.[112] There are many Greek letters, including a whole circle of Greek vowels; [113] more will be said of these in the next section. At the start of the 20th century CE the inscribed disc was thought to work as an alphabet-oracle, but its shortcomings in such a role have led in recent times to additional or alternative proposals. For example, the disc might be a miniature representation of the Platonic universe, intended to be spun like a top by means of a whip; such Hekatic *iynges* were thought to mimic the movement of the planetary spheres by the gods, thereby allowing the human operator to engage or identify with them.[114] Another theory is that the disc might have been a tool used to enter an altered state of consciousness, in which the operator would gaze at the central point of the hypnotic radial design until they entered a trance.[115]

A number of the symbols inscribed on the disc – whether letters or *charakteres* – are not dissimilar to the glyphs that comprise the Seven Seals, such that one can construct from the disc's repertoire a passable simulacrum of the Seal series (Fig. 7d). The "divided circle" used to represent the 6th Seal is probably a Greek *phi* (ϕ); circles and *phi*-like symbols travelled widely in magical and apotropaic practice, even to the extent of insinuating themselves into medieval Jewish *mezuzot* (scriptural doorpost fixtures).[116] The "four strokes" symbol used to represent the 5th Seal is similar to an Egyptian hieroglyph (Gardiner O42) and its derivatives,[117] although here too there may be a link to the Greek alphabet, as discussed in the next section. Of course, it is not suggested here that the inscribed disc actually contains the Seven Seals *per se*; the "Prognostikon" merely serves as a nice illustration of how the magical symbol repertoire of late antiquity contained symbols with shapes similar to the Seal characters.

A Greek connection?

There are precedents from the early centuries CE for sets of seven characters, as well as Kabbalistic symbols and angel names, being used as talismans of great power. One of these sets was the seven Greek vowels. For example, the Pavitts write of two Gnostic amulets:[118]

> The Seven Greek Vowels symbolised the seven heavens, or Planets, whose harmony keeps the Universe in existence, each vowel having seven different methods of expression corresponding with a certain Force, the correct utterance of these letters and comprehension of the forces typified being believed to confer supreme power, bringing success in all enterprises and giving complete control over all the powers of darkness.

Presumably these vowels are the direct successors of the Egyptian "act-filled sounds" which we encountered above.[119] It is possible that there is a connection between the seven Greek vowels of Gnostic amulets and the form of the 2nd and 5th Seals. For example, Stefan Strelcyn quotes from the Gnostic work *Pistis Sophia*:[120,121]

> It is the name of the Immortal *aaa* …But here is the explanation of the names of those mysteries: the first of which is *aaa* … he who is on the throne, he is *aaa*. Here is the explanation of the second, *aaaa*, *aa aa*, *a a a a*. This is explanation of the entire name.

If one writes these vowel-names using the cognate Arabic letter, *ʾalif*, in place of the Greek *alpha*, the "first name" becomes ااا, like the 2nd Seal, while the "second name" forms become اااا, ا ا, and ا ا ا ا, all of which match known expressions of the 5th Seal.

Another possibility involving Greek letters, including *alpha*, is Hans Winkler's suggestion that the 6th and 7th Seals are corruptions of the Christian "*alpha* (α) and *omega* (ω),"[122] a consideration that will be dealt with below in the section on religious symbolism.

Numerology

Arabic letters are associated not only with a simple numerical value but with a "higher numerical value" obtained by *taksīr*, a form of *ʾabjad* reckoning. In this method, the letter is written down as it is spelled (e.g. ا ل ف for *ʾalif*) and the sum of the numerical values of the component letters is calculated (in this case, 1+30+80 = 111).[123] No less than 18 of the values for the 28 letters begin or end with a "1," and the conversion of *ʾalif* and *yāʾ* to 111 and 11, respectively, means that text converted to numerical cipher in this way – an operation used in constructing talismans – contains "runs of ones."[124,125] Less learned practitioners may have seen obvious repeats such as 111 and 1111 as magical entities in their own right, potentially leading to the 2nd and 5th Seals, respectively. While this is speculation, it is known that magic squares were often built to include the mystical number 111, in view of its identification with *ʾalif*, and thus the oneness of God.[126] The fame of this number was widespread; a metal 6 x 6 magic square bearing Arabic numbers whose vertical, horizontal and diagonal lines sum to 111 was found buried in the foundations of a house in Shaanxi province, China, where its purpose was to dispel evil spirits.[127] Returning to the Islamic world, the (ordinary) numerical values of the letters in *al-Kāfī* (The Sufficient),[128] one of the Beautiful Names of Allāh, add up to 111.[129] Paradoxically, odd numbers such as this belong to "the world of constriction," and are usually employed in Arabic magic to produce some injury.[130] In contrast, the 3rd Seal is represented by a *mīm* which has the numerical value of 40, an even number that has significance in Muslim popular belief and in the veneration of saints.[131]

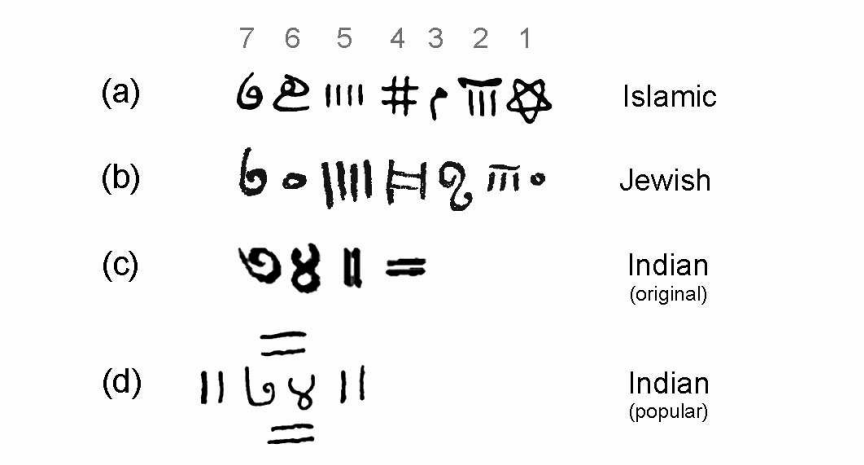

Fig. 10. Indian magic seals related to the "special number" 74. (a) Islamic and **(b)** Jewish seven Seals, as in Fig. 1. **(c)** Indian numerological seal, original version.[132] **(d)** Indian numerological seal, popular/decorative version.[133] The last two panels are aligned with the first two.

J. McG. Dawkins has drawn attention to the similarity of an Indian "magic seal," which is related to the value 74 expressed in Devanagari (Hindi) numerals, to the last three of the Seven Seals (Fig. 10).[134] The Indian seal is written on envelopes to ensure that the letter is read by no-one other than the addressee. Various explanations exist in India for the choice of the number. One story relates them to a massacre by Akbar (the third Mughal

Emperor) at Chitor in 1568 CE, where the number of Rajput killed was estimated by weighing the Brahminical cords taken from the corpses of high-caste men; the total was 74½ *mans*,[135] so the numerals corresponding to this value were considered cursed. The sin of the slaughter at Chitor would be inherited by anyone violating the privacy of a message protected by these numbers.[136] Another story explains the four strokes in the authentic form of the Indian seal (Fig. 10c) as denoting 10 *anas* in the counting system of Hindu merchants, so that the seal really denotes 74+10 = 84, a reference to the sacred Chaurasi number, 84.[137] This number's significance derives from the existence, in Hindu mythology, of 8,400,000 different living species in the universe,[138] and this number of lifetimes constitutes one complete cycle of transmigration.[139] In Mahayana tradition, Buddha is said to have given 84,000 different dharmas (teachings),[140] one for each of the 84,000 different types of people, and there are 84 Mahasiddhas (empowered masters) in Hinduism and Tibetan Buddhism.[141] Yet another story relates how a group of Nagar Brahmins – Gujarati women from the Nimar District of Madhya Pradesh, who were famous for their beauty and musical ability – were forcibly summoned before the Mughal emperor Jahangir (17th century CE). Many drowned themselves rather than lose their modesty by complying, while another group of 7,450 (74½ hundred) threw away their sacred threads and became Sudras (members of the lowest caste) in order to save themselves.[142] The number 74½ was, once again, considered unlucky to the point of carrying a curse.

Muslims of the subcontinent who use the Indian seal as a charm typically follow it with an Arabic expression that transliterates as *badīgrān*, "with the other." Like the end of the North African curse "May Allāh give him poison and the other," the cryptic phrase is probably an oblique threat of Divine reprisal.[143] Dawkins thought that the Indian symbol series might be related to the last three of the Seven Seals, whereas from Fig. 10a-c it seems that the relationship might actually extend to the last four. Dawkins suggested that the terminal subset of the Islamic Seals had become detached and embarked on an independent existence in India, where they acquired local explanations of their symbolism.[144] Certainly, their association with Brahminic tragedies caused by two Muslim emperors would accord with a transfer from Islam to Hinduism in which their magical power changed from protective to destructive. However, the only one of Dawkins' sources to express an opinion on the matter considered the Indian seal to have Hindu origins, and to have only later been adopted by local Muslims.[145] Thus it is also possible that these symbols began in India much earlier as a mystical power-number[146] and diffused thence to the Middle East, where – their original meaning lost – they were combined with other magical signs to form the Seven Seals.[147]

Religious abbreviations and signifiers

Staying in India a little longer, it is interesting to note that a quarter-turn of the traditional Devanagari or Gujarati ligature for the mystical sound *OM*[148] – the root of the entire Vedic universe[149] – could provide key elements of the first three or four Seal symbols (Fig. 11a). Likewise the *siddham* power-glyph,[150,151] which appears as a greeting or benediction at the start of some medieval Indian talismans[152] and many earlier

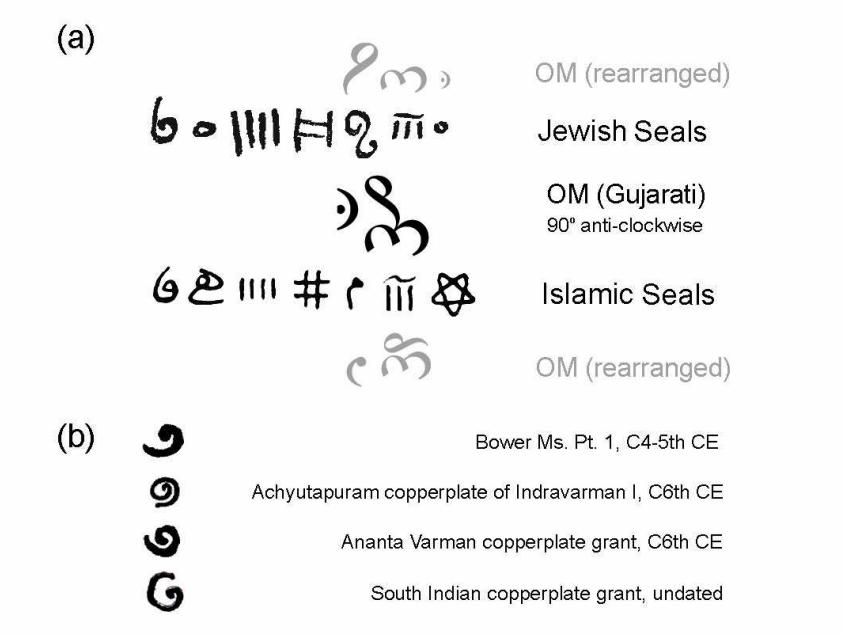

Fig. 11. Indian *OM* and *siddham* power-symbols. (a) The *OM* ligature has been rotated a quarter turn counter-clockwise and juxtaposed with the symbols at the start of the Jewish and Islamic Seal series. Further rearrangements of the elements comprising the *OM* symbol are shown in grey after alignment with potentially cognate Seal symbols. **(b)** Early examples of the *siddham* symbol. For additional examples, see Boeles.[153]

copperplate grants, matches closely the shape of the 7th Seal (Fig. 11b). It has long been confused with *OM* by foreigners due to its common vocalization as *Oṁ siddiḥ*.[154]

But in all likelihood it is the Abrahamic religions that should be the focus of our attention in this section. Even before the Middle Ages, the pentagram/hexagram was established in Judaism and Islam as a talismanic symbol of protection against evil spirits, with the five- and six-pointed forms being used interchangeably.[155,156] In the Seal series the pentagram would have preceded the hexagram, since its five corners accord with the early identification of the 1st Seal as the Arabic letter *hāʾ* (numerical value 5)[157] and its occasional early depiction as an isolated *hāʾ* (٥ , cf. the Arabic number five, ٥, and the circle that commences the Jewish Seal series, Fig. 1b).[158] Let us next consider the 5th Seal and its four vertical strokes. Despite its traditional interpretation as four fingers, which might reflect an apotropaic gesture[159,160] intended to confer protection against *jinn* with incomplete hands,[161] both al-Būnī and al-Tilimsānī refer to this Seal as "the four *ʾalifs*."[162] Hans Winkler felt that the four strokes were unlikely to be a simulacrum of the four Arabic letters of Allāh (الله), in which each stroke recapitulated the initial *ʾalif*; instead, he thought that the four strokes of the Seal might signify the four Hebrew letters of the Jewish Tetragrammaton (יהוה).[163] The latter suggestion is supported by the fact that the Tetragrammaton is well known to have undergone a transposition of this type into Greek letters (ΠΙΠΠ).[164,165] For his part, Winkler claims that Shamhūrish, the name of the cognate *jinnī*, is a corruption of *Shemhamforash* (from the Hebrew שם המפורש), and that the association of the 5th Seal with Jupiter/Jove supports his proposed connection

with Jahweh.[166] His proposal is certainly consistent with al-Būnī's attribution of this Seal to the Torah.[167]

Winkler also recognised that the letters embodied by the 6th and 7th Islamic Seals (the split-*hāʾ* and inverted *wāw*, respectively) spell the Arabic word *huwa*,[168] meaning "He," the Qurʾānic designation for Allah,[169] and a term venerated in Islamic mysticism as representing the Divine Ipseity or "God's Selfness."[170,171,172] To these observations one may add that the cognate letters *he* and *vav* (הו) form the core of the Jewish Tetragrammaton,[173] and the corresponding Hebrew word *hu* carries a similar meaning and the same mystical overtones as the Arabic *huwa*.[174,175] Moreover, in the 8-symbol form of the Islamic Seals (Fig. 1a, top line), the final pentagram equates to an additional *hāʾ*,[176] so the last three symbols of this series correspond to the last three letters of the Tetragrammaton. Despite the abundance of Judeo-Islamic possibilities, Winkler speculates that the 6th and 7th Seals (the split-*hāʾ* and inverted *wāw*, respectively) may be derived from the Christian "*alpha* and *omega*" (Rev. 1:8, 21:6, & 22:13), α and ω respectively.[177] Winkler was motivated by al-Būnī's assertion that some of the Seals come from the Torah, others from the Gospel, and the remainder from the Qurʾān. However, al-Būnī claims that the 6th and 7th Seals are from the Torah rather than the New Testament.[178] While appealing from an ecumenical perspective, Winkler's interpretation of the final two Seals as Christian symbols does not seem to have gained much support from subsequent scholars.[179]

Venturing further into inter-faith speculation, Winkler went on to propose that the three strokes of the 2nd Seal signify the Christian Trinity, or that they are minimalist representations of the three letters of the Christogram IHC (the Latin equivalents of the first three letters of "Jesus" in Greek) or the Greek acronym ΧΜΓ ("Christ born of Mary," or "Christ Michael Gabriel," etc.).[180,181] In Christian use, these letter-groups are identified as abbreviations by the addition of a straight or curved over-bar, which could be the inspiration for the horizontal "lance" atop the 2nd Seal.[182] Once again, Winkler's proposal does not seem to have found much favour with subsequent scholars, particularly as there are no other instances of such a symbol being used to represent Jesus and/or the Trinity.[183] Moreover, al-Būnī attributes the 2nd Seal to the Qurʾān rather than to the Gospel.[184]

The 3rd Seal is traditionally depicted by the Arabic letter *mīm* (م) and interpreted as a mutilated form of this letter.[185] Although the *mīm* is sometimes used as an abbreviation for Mohammed, since the Prophet's name commences with this letter and contains an additional instance of it,[186,187] al-Būnī assigns this Seal to the New Testament rather than to the Qurʾān.[188]

Shape archetypes and neurobiology

There are surprisingly few cognates for the Seal symbols in Carl Liungman's *Dictionary of Symbols*, and only the first and last Seals are listed as *gestalts*,[189] i.e. fundamental signs that are complete in themselves and not further divisible into component elements.

Despite this supposed lack of graphic profundity, it has recently been suggested that the Seal symbols are in fact shapes whose perception is hard-wired into the human nervous system. Specifically, it is proposed that the Seal symbols may be derived from phosphenes[190] – neuro-optical illusions of bright geometric shapes or patterns that are "seen" in total darkness or with closed eyes. Phosphenes arise spontaneously from random firing of cells in the visual system; in addition, they can be induced deliberately by mechanical, electrical, or magnetic stimulation of the retina or visual cortex, or be elicited chemically by hallucinogenic drugs. These entopic phenomena are the "stars" that you see when you bump your head. In 1965 Kellogg *et al.* categorized these innate images into a limited repertoire of shapes, 15 "phosphene form groups" in all.[191] These shape archetypes have been proposed to underpin human graphic expression, informing outputs as diverse as the scribblings of pre-school children,[192] adult doodles,[193] Oriental mandalas,[194] the motifs of rock art petroglyphs[195] and megalithic monuments,[196,197,198] as well as works of modern art.[199,200]

Likewise, our attraction to certain external shapes and patterns is due to their resonance with the physical structure and perceptual processes of the human visual system.[201] The limbic system of the brain, which is tightly interconnected with both the prefrontal cortex (problem-solving, decision-making) and the nucleus accumbens (emotional arousal, pleasure/reward), is central to the experience and attribution of religious significance to certain geometric motifs.[202]

It is not difficult to find Seal-like symbols in the phosphene repertoire (Fig. 12), with the Seal glyphs relating – albeit rather loosely – to no less than 11 of the 15 categories. If these shapes are indeed innate to human consciousness, then they are likely to have figured in the altered states of consciousness that attend mysticism, revelation and religious experience.[203] For example, al-Būnī described a vision in which luminous concentric circles (one of the phosphene categories of Kellogg *et al*.) manifested to him

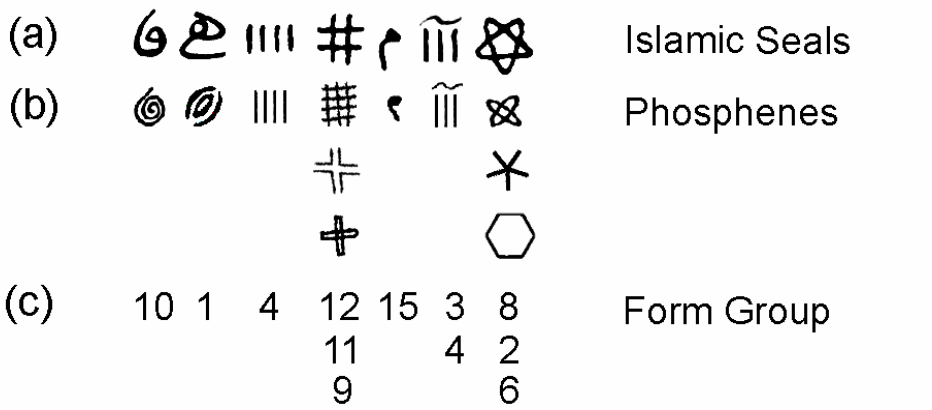

Fig. 12. Phosphenes as possible precursors of the Seal symbols. (a) Islamic Seven Seals. **(b)** Phosphene archetypes with Seal-like shapes; symbols after Kellogg *et al*.,[204] ordered so as to match the Seal series above. **(c)** The relevant form group number from the classification scheme of Kellogg *et al*., with description as follows.[205] Group 1, Arc, crescent; 2, Radial, star; 3, Wave (line or multiple); 4, Lines; 6, Circle, hexagon; 8, Odd figure; 9, Quadrangle; 10, Spiral; 11, "Pole;" 12, Lattice; 15, "Cherries."

the Image of Majesty and source of the Divine Names.[206] Experiences of this kind might underpin the appearance of the Seal series and explain why this set of symbols came to be privileged as Divine in both Jewish Kabbalah and Islamic Sufism, emerging from the latter as the Greatest Name of God.[207]

A neurobiological hypothesis such as this would help to explain the recurring overlap between certain Seal symbols and subsets of the sign repertoires of cultures separated so much from the medieval Middle East by time and/or distance that even a diffusionary influence must be considered unthinkable. Into such out-groups we must place *inter alia* the sign-list of the Neolithic Vinča culture of the Balkans (6-5th millennia BCE),[208] the inscriptions on Western Zhou dynasty oracle bones of Shaanxi province, China (11-8th centuries BCE),[209] and the Ogham script used to inscribe Celtic monuments in early medieval times (4-10th centuries CE).[210] All of these symbol systems contain asterisks, lattices and vertical-line repeats (with and without over-bars) that resemble the 1st, 4th, and 2nd/5th Seal symbols, respectively. Like the Seal repertoire, the Chinese and Vinča symbol systems are fundamentally religious in nature,[211] so one would expect their components to be drawn from the deepest levels of our visual lexicon.

The innate aesthetic appeal of the Seven Seals is evidenced by their inclusion even in modern secular art. For example, the symbol series features in several works by contemporary Iraqi/German artist Iman Abdullah Mahmud, including a painting that was acquired by the British Museum.[212]

Concluding remarks

While the lack of Seal-like symbols in Liungman's *Dictionary of Symbols* was remarked as surprising in the previous section, there are also surprisingly few cognates in Fred Gettings' *Dictionary of Occult, Hermetic and Alchemical Sigils*, which charts the development of symbols in esoteric use.[213] The most that can be said is that the 2nd, 4th, 5th and 7th Seals bear some resemblance to recurring forms of the symbols for the Zodiac signs Sagittarius, Gemini, Virgo and Leo, respectively. The planets associated with these Seals do not accord with the planets conventionally thought to rule these signs.

In 1920 CE, William Stevenson proposed various holistic or conceptual suggestions for origins of the symbols. Thus he saw both the 2nd and 5th Seals as apotropaic and/or benedictory hand-gestures involving three and four fingers, respectively, while the split-*hāʾ* of the 6th Seal might have originally been a closed hand with the thumb protruding. If not a hand, he thought that the 6th Seal might be a phallic symbol. The inverted *wāw* of the 7th Seal he proposed as originally depicting an eye; certainly, stylized eyes feature extensively in the talismanic repertoire of defences against evil, especially in popular charms to deflect the "evil eye."[214] Stevenson also thought that the 4th Seal – which is likened to "a ladder to all that is hoped for" in ʿAlī's poem – might be a remembrance of the ancient Egyptian belief in a ladder that allowed the souls of the dead access to heaven.

While many meanings and associations have been acquired by each of the Seven Seals over the centuries,[215] this article has tried to confine itself to possible origins for the

symbols. No doubt this constraint has been exercised imperfectly, as the boundary between the categories of origin and exegesis are necessarily fluid and ill-defined. Although no definitive answer to the question of the symbols' origin has emerged, the Seals have led us on a survey of possibilities that has ranged from ancient Mesopotamia to modern neuropsychology. The various possibilities are not always mutually exclusive. For example, the mysterious "seven signs" on the Late Babylonian amulet may have been considered powerful because they depict entopic phenomena – phosphenes – experienced during encounters with the numinous, and if the Seven Seals have become privileged for the same reason, then the Seals are their successor in terms of concept if not of history.

In modern times, perhaps one of the most endearing attributes of this enigmatic set of symbols is the way in which they keep us in a state of wonder. As we search for the key to their mystery, we are prompted to discover surprising continuities and commonalities between disparate times, regions, languages, cultures and religions.

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Cite as: Lloyd D. Graham (2012) "The Seven Seals of Judeo-Islamic Magic: Possible Origins of the Symbols," online at https://www.academia.edu/1509428/The_Seven_Seals_of_Judeo-Islamic_Magic_Possible_Origins_of_the_Symbols.

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[1] Emilie Savage-Smith, 2004, "Introduction – Magic and Divination in Early Islam," In: *Magic and Divination in Early Islam*, ed. Emilie Savage-Smith, Ashgate Variorum, Aldershot, p.xiii-xlxi, at xxiv.

[2] Edmond Doutté, 1908, *Magie et Religion dans l'Afrique du Nord*, Adolphe Jourdan, Algiers, p.158, 244 & 248. A facsimile reprinting published in 1984 by J. Maisonneuve & P. Geuthner, Paris, is more widely available.

[3] Tewfik Canaan, 2004, "The Decipherment of Arabic Talismans," In: *Magic and Divination in Early Islam*, ed. Emilie Savage-Smith, Ashgate Variorum, Aldershot, p.125-166 & 167-177, at 167-169.

[4] Doutté, 1908, *Magie et Religion*, p.125-177 & 169-171, at 169-172.

[5] Tewfik Canaan, 2004, "Decipherment," 169-172.

[6] Georges C. Anawati, 1967, "Le Nom Supreme de Dieu (*ism Allāh al-aʿẓam*)," In: *Atti del Terzo Congresso di Studi Arabi e Islamici: Ravello, 1-6 Settembre 1966*, Instituto Universitario Orientale, Naples, p.7-58.

[7] Hans A. Winkler 2006, *Siegel und Charaktere in der Mohammedanischen Zauberei*, Geheimes Wissen, Graz, Austria, 76-195. I cite this modern reprinting by M. Munteanu rather than the 1930 Berlin edition of Walter de Gruyter & Co. as it inexpensive and still in print, unlike the original book. Note that the pagination of the original is not preserved.

[8] Winkler, 2006, *Siegel und Charaktere*, p.214.

[9] Winkler, 2006, *Siegel und Charaktere*, p.219-220; Margaret Smith, 1931, "Siegel und Charaktere in der Muhammedanischen Zauberei by H. A. Winkler – Review," *Bulletin of the School of Oriental Studies* (London) 6 (3), 803-806.

[10] Aryeh Kaplan, 1985, *Meditation and Kabbalah*, Red Wheel/Weiser, San Francisco, p.138 & 266.

[11] Gabriella Samuel, 2007, "The Seven Mystical Seals," In: *The Kabbalah Handbook*, Tarcher/Penguin, New York/London, p.301.

[12] More properly, "Islamic magic" should in this article be understood as "Islamic theurgy." See John D. Martin III, 2011, *Theurgy in the Medieval Islamic World: Conceptions of Cosmology in al-Būnī's Doctrine of the Divine Names*, M.A. Dissertation, The American University in Cairo.

[13] Lloyd D. Graham, 2011, "In Islamic Talismans, Repeat-Letter Ciphers Representing the 'Greatest Name' Relate to an Early Prototype of the Seven Seals and may Link the Seals with the Pleiades," *Epigraphic Society Occasional Papers* 29, 70-91. Hereafter abbreviated to "Repeat-Letter Ciphers." Online t http://www.academia.edu/1999297/In_Islamic_Talismans_Repeat-Letter_Ciphers_Representing_the_Greatest_Name_Relate_to_an_Early_Prototype_of_the_Seven_Seals_and_may_Link_the_Seals_with_the_Pleiades.

[14] Steven M. Wasserstrom, 2005, "The Unwritten Chapter: Notes towards a Social and Religious History of Geniza Magic," In *Officina Magica: Essays on the Practice of Magic in Antiquity*, ed. Shaul Shaked, Brill, Leiden/Boston, p.269-294, at 275.

[15] Gershom Scholem inclined to the view that the symbols entered Judaism from Islam [Gershom Scholem, 1949, "The Curious History of the Six Pointed Star: How the *Magen David* Became the Jewish Symbol," *Commentary* 8, 243-251.] A paper providing a detailed comparison of the Seven Seals in the two religions is in preparation.

[16] "The seven seals, as they occur in Arabic, are already a very late development, formed from older signs which had a very definite meaning. Many of these ancient signs are borrowed elements from old alphabets the use of which has disappeared. One has only to look at Hammer's collection of ancient alphabets to find striking parallels." M. Gaster, 1936, "Siegel u. Charaktere in der Muhammedanischen Zauberei by H. A. Winkler – Review," *Journal of the Royal Asiatic Society of Great Britain and Ireland* 68, 131-133.

[17] E.g., William B. Stevenson, 1920, "Some Specimens of Moslem Charms," In: *Studia Semitica et Orientalia*, ed. Glasgow University Oriental Society, MacLehose, Jackson & Co., Glasgow, p.84-114, at p.113; Winkler, 2006, *Siegel und Charaktere*, p.194; Gaster, 1936, "Review," 132.

[18] Eliahu ben Moshe Loans and Joel ben Isaac Halpern, *Toldot Adam*, 1st edn. 1720 CE, Zholkva/Zolkiev, Ukraine, and 2nd edn. 1872 CE, S.L. Kugel, Lewin & Co. (printed by A. Yerleger), Lemberg/Lviv, Ukraine; Sect. 158, 2nd Seal series. The earliest Jewish source explicitly calls the 2nd Seal the "three *vavs*" and describes the 7th Seal as a twisted or pulled *mem*; Rabbi Isaac of Acco (attrib.) [transl. title:] *The Functional Names, Making Amulets, Spells, etc.: Excerpts from Practical Kabbalah*, Moscow-Günzburg 775, 14-15th century CE; with thanks to Russian State Library, Moscow, and the Jewish National and University Library, Institute of Microfilmed Hebrew Manuscripts, Ms. R.R. Film No. F4194, IMHM record 000069800. The second appellation is reiterated in English as "crooked *mem*" by Kaplan, 1997, *SeferYetzirah – The Book of Creation*, Red Wheel/Weiser, p.172.

[19] Winkler, 2006, *Siegel und Charaktere*, p.94, 115, 153, 176-178 & 187-195, reiterated in English by Ingrid Hehmeyer, 2008, "Water and Sign Magic in al-Jabin, Yemen," *American Journal of Islamic Social Sciences* 25, 82-96, at 87-90.

[20] W.M. Flinders Petrie (1914) *Amulets*, Constable & Co., London, p.32 (Pl. XXIII, 136 k,l). These are objects UC52237 and UC52238, both viewable online via the UCL Museums & Collections: Petrie Museum Catalogue, at http://petriecat.museums.ucl.ac.uk/, accessed 30 December, 2011.

[21] While this is the simplest interpretation, it is also possible that the symbol order was established but not known to the inscribers of these amulets, or not important to them. Interpretations of this kind are more easily reconciled with the idea that the Seven Seals might reflect a pre-existing symbol sequence found on an ancient artifact or petroglyph, as proposed elsewhere in this paper.

[22] Winkler, 2006, *Siegel und Charaktere*, p.107 (Table 1, objects 5-7). The illustration reproduced in Fig. 2 is from the original 1930 printing.

[23] Rudolf Kriss & Hubert Kriss-Heinrich, 1962, *Volksglaube im Bereich des Islam*, vol. 2 (*Amulette, Zauberformeln und Beschwörungen*), Otto Harrassowitz, Wiesbaden, Fig. 21 (top panel) shows another good example.

[24] Winkler, 2006, *Siegel und Charaktere*, p.223.

[25] E.g., **(a)** Joseph Tirshom, *Shoshan Yesod Olam*, Bibliothèque de Genève, Comites Latentes 145, 15-16th century CE; with thanks to Bibliothèque de Genève and the Jewish National and University Library, Institute of Microfilmed Hebrew Manuscripts, Ms. R.R. Film Nos. F9273, F39891, COP22, PH3910, CD77, CD89; IMHM record 000133810, p.461. **(b)** Moses ben Mordecai Zacuto, 1999, *Shorshei haShemot*, Hotzaat Nezer Shraga, Jerusalem, p.434; a reprint of a 17th century CE book on Divine Names. **(c)** Loans & Halpern, *Toldot Adam*, both editions; Sect. 158, first Seal series.

[26] Winkler, 2006, *Siegel und Charaktere*, p.222.

[27] Permission sought and granted under the original title for this article, "A Late Babylonian Precedent for the Seven Seals of Judeo-Islamic Magic?" Contract no. 11853, de Gruyter (Munich), 12 May 2012.

[28] Winkler, 2006, *Siegel und Charaktere*, p.88.

[29] Winkler, 2006, *Siegel und Charaktere*, p.88.

[30] H. Henry Spoer, 1935, "Arabic Magic Medicinal Bowls," *Journal of the American Oriental Society* 55 (3), 237-256, at 240.

[31] Lloyd D. Graham, 2012, "Repeat-Letter Ciphers"

[32] Winkler, 2006, *Siegel und Charaktere*, p.94 & 103-104.

[33] Spoer, 1935, "Arabic Magic Medicinal Bowls," 244.

[34] Tewfik Canaan, 1936, "Arabic Magic Bowls," *Journal of the Palestine Oriental Society* 16, 79-127, at 97.

[35] Denis MacEoin, 1994, *Rituals in Babism and Baha'ism*, Pembroke Persian Papers, vol. 2., British Academic Press, London, p.145-146.

[36] Venetia Porter, 1998, "Islamic Seals: Magical or Practical?" In: *University Lectures in Islamic Studies*, vol. 2, ed. A. Jones, Altajir World of Islam Trust, London, p.135-149 (whose translation is reproduced in Hehmeyer, "Water and Sign Magic," 86).

[37] 2nd Seal

[38] 1st Seal

[39] Over-bar on 2nd Seal

[40] 3rd Seal

[41] 4th Seal

[42] 5th Seal

[43] 6th Seal

[44] 7th Seal

[45] Online at http://www.britishmuseum.org/research/search_the_collection_database/search_object_details.aspx?objectid=369101&partid=1&IdNum=113865&orig=%2fresearch%2fsearch_the_collection_database%2fmuseum_number_search.aspx; accessed 28 December, 2011.

[46] Online at http://en.wikipedia.org/wiki/Sumerian_language, accessed 5 January, 2012.

[47] George Rawlinson, 1862, *The Seven Great Monarchies of the Ancient Eastern World*, vol. 1, John Murray, London, p.81.

[48] Alphonse A. Barb, 1953, "Diva Matrix," *Journal of the Warburg and Cortauld Institutes* 16, 193-238, at 216; 1964, "Three Elusive Amulets," *Journal of the Warburg and Cortauld Institutes* 27, 1-22, at 8.

[49] Marc Philonenko, 1979, "L'anguipède Alectorocéphale et le Dieu Iaô," *Comptes Rendus des Séances de l'Académie des Inscriptions et Belles-Lettres* 123, 297-304, at 302.

[50] Franz J. Dolger, 1972, *Sol Salutis: Gebet und Gesang im Christlichen Altertum*, Aschendorff, Münster (reprint of 1925 original), 403-404.

[51] Marcellin Berthelot, 1885, *Les Origines de l'Alchimie,* G. Steinheil, Paris, p.63.

[52] Both opinions are cited in William M. Brashear, 1973, "The Greek Magical Papyri: an Introduction and Survey." In: *Aufstieg und Niedergang der Römischen Welt: Geschichte und Kultur Roms im Spiegel der Neueren Forschung. Von den Anfängen Roms bis zum Ausgang der Republik*, vol. 1, ed. Hildegard Temporini, Walter de Gruyter, Berlin, p.3380-3684, at 3442.

[53] Joseph Tirshom, *Shoshan Yesod Olam*.

[54] Rabbi Isaac of Acco (attrib.), *The Functional Names.*

[55] Loans & Halpern, 1720, *Toldot Adam*, 1st edn., Section 158, 2nd Seal series.

[56] E.g., Winkler, 2006, *Siegel und Charaktere*, p.151-152.

[57] Aḥmad al-Būnī, *Shams al-Maʿārif wa Latā'if al-Awārif*, Ms. copy date 1468 CE.

[58] If the initial asterisk serves only as a generic determinative for deity, then technically only six specific god-signs are present on the amulet. The asterisk may, however, have served both as a divine determinative and as the specific symbol for the goddess Inanna/Ishtar, one of the "seven gods who decreed fate" and the most prominent female deity in ancient Mesopotamia, since her symbol was the eight-pointed star. See Sa-Moon Kang, 1989, *Divine War in the Old Testament and in the Ancient Near East* (*Beihefte zur Zeitschrift für die Alttestamentliche Wissenschaft*, vol. 177), Walter de Gruyter, Berlin, p.36.

[59] Anthony M. Love, 1997-2004, "Sumerian Deities," online at http://www.sarissa.org/sumer/sumer_g.php, accessed 7 April, 2012.

[60] Anne-Caroline Rendu Loisel, 2011, "Gods, Demons and Anger in the Akkadian Literature," *Studi e Materiali di Storia delle Religioni* 77 (2), 323-332.

[61] Love, 1997-2004, "Sumerian Deities."

[62] Jeremy A. Black & Anthony Green, 1992, *Gods, Demons, and Symbols of Ancient Mesopotamia: An Illustrated Dictionary*, Univ. of Texas Press, p.162.

[63] Joshua J. Mark, 2011, "The Mesopotamian Pantheon,"(entry "Sebitti") in *Ancient Encyclopedia History* online at http://www.ancient.eu.com/article/221/, accessed 7 April, 2012.

[64] Black & Green, 1992, *Gods, Demons, and Symbols of Ancient Mesopotamia*, p.162.

[65] Mark, 2011, "The Mesopotamian Pantheon."

[66] Lloyd D. Graham, 2012, "Repeat-Letter Ciphers."

[67] Meir Malul, 2011, "Jewish Necromancy by Means of Human Skulls and Bones…," *Journal of Northwest Semitic Languages* 37 (1), 57-94.

[68] Frances Harrison & Nineveh Shadrach, 2005, *Magic That Works – Practical Training for the Children of Light*, Ishtar, Vancouver, p.47.

[69] A precedent for medieval rediscovery of a Sumerian plaque and its repurposing as an Islamic talisman exists in Schøyen Collection MS 2400, online at http://www.schoyencollection.com/arabic.html, Section 4.7.1, accessed 23 December, 2011.

[70] A Byzantine prototype (pre-800 CE) of such sequential one-letter offsets can be found in a series of 7-letter vowel-strings inscribed on a theatre wall; these were intended to invoke angelic protection for the city of Miletus in Asia Minor. David Frankfurter, 1994, "The Magic of Writing and the Writing of Magic: The Power of the Word in Egyptian and Greek Traditions," *Helios* 21 (2), 189-221, at 202.

[71] Online at http://www.ancientscripts.com/sumerian.html and http://www.omniglot.com/writing/sumerian.htm, accessed 26 December, 2011.

[72] Handwritten Ottoman Turkish *mecmua* (journal) book containing several versions of the *Jaljalutia* conjuration and Seal-containing magic squares. Volume, catalogued by dealer as *Ayazma*, bears Arabic number 88 on spine. Written by many different hands, one section is dated 1302 AH (1884 CE) while another is dated 1309 AH (1892 CE). Author's collection.

[73] Online at http://www.schoyencollection.com/magical.html, accessed 21 December, 2011.

[74] Erle Lichy, 1971, "Demons and Population Control," *Expedition*, Winter issue, 22-26; online at http://www.penn.museum/documents/publications/expedition/PDFs/13-2/Lichty.pdf, accessed 20 December, 2011.

[75] Online at http://www.unicode.org/charts/PDF/U103A0.pdf, accessed 8 January, 2012.

[76] Michael Kerrigan, 2009, *The Ancients in Their Own Words*, 3C Publishing/Amber Books, Amersham/London, p.95,102,107-8.

[77] Ebers, 1875, *Papyros Ebers*, Table 78.

[78] Loans & Halpern, 1872, *Toldot Adam*, 2nd edn., Section 158, 1st Seal series.

[79] Rabbi Isaac of Acco (attrib.) *The Functional Names*.

[80] Philip Ardagh, 1999, *The Hieroglyphics Handbook*, Faber & Faber, London, p.50.

[81] E.g., the "four pillars" in Utterance 217 of the Pyramid Texts; see online at http://www.pyramidofman.com/Djed/, accessed 12 January, 2012.

[82] Georg Ebers, 1875, *Papyros Ebers*, Engelmann, Leipzig, Table 78.

[83] Idries Shah, 1993, *Oriental Magic*, Octagon Press, London, p.24. One naturally thinks here of the secret Name of the creator sun-god Ra, knowledge of which conferred limitless power. It was extorted from Ra by Isis, who passed it to her son Horus and thereby provided him with a power greater than any other god. See, for example, George Hart, 2005, *The Routledge Dictionary of Egyptian Gods and Goddesses*, 2nd edn., Routledge, London & New York, p.82.

[84] Algis Uždavinys, 2008, "Metaphysical Symbols and Their Function in Theurgy," *Eye of the Heart* 2, 37-59.

[85] David Frankfurter, 1994, "The Magic of Writing and the Writing of Magic," 209-210.

[86] Richard Gordon, 2002, "Another View of the Pergamon Divination Kit," *Journal of Roman Archaeology* 15, 188-198, at 190. The "names" referred to are the unintelligible *nomina barbara* (p.195). The Egyptian "act-filled sounds" draws upon *Corpus Hermeticum* XVI, 2 (3rd century CE), The Perfect Sermon of Asclepius unto the King: "For that its very quality of sound, the power of the Egyptian names, have in themselves the bringing into act of what is said. [... Therefore] keep our sermon from translation; in order that such mighty mysteries may not come to the Greeks, and the disdainful speech of Greece, with all its looseness, and its surface beauty, so to speak, take all the strength out of the solemn and the strong – the energetic speech of Names. [... For] we do not use words; but we use sounds full-filled with deeds." G.R.S. Mead, 1906, *Thrice-Greatest Hermes*, vol. 2, p.267, Theosophical Publishing Society, London & Benares; online at http://www.sacred-texts.com/gno/th2/th231.htm, accessed 07 September, 2016.

[87] One can see the Seal series foreshadowed in other aspects of Late Antique *charakteres*, too. For example, at lines 262-347, PGM I (4th-5th century CE) instructs the operator to "Write on the sprig of laurel the seven characters for deliverance [...] For this is the body's greatest protective charm, by which all are made subject, and seas and rocks tremble, and daimons [avoid] the characters' magical powers which you are about to have." [Hans D. Betz, 1986, *The Greek Magical Papyri in Translation including the Demotic Spells*, Univ. Chicago Press, Chicago &London, p.10.] The *charaketeres*, which are large relative to the text, form the centrepiece of the *recto* of the papyrus (*P.Berol.* 5025); see photograph online at http://smb.museum/berlpap/index.php/01590/. As with many instances of the Seven Seals (e.g., Figs. 1a & 9d), there are in fact eight symbols in the series.

[88] Alexander Fodor, 2004, "The Rod of Moses in Arabic Magic," In: *Magic and Divination in Early Islam*, ed. Emilie Savage-Smith, Ashgate Variorum, Aldershot, 103-123.at 113.

[89] Stephen N. Lambden, 2008/9, "Translations from the Writings of Sayyid Kāẓim Rashtī (d. 1259/1843) Risālah fī Sharḥ wa Tafsīr ism al-Aʿẓam: A Treatise in Explanation and Commentary upon [a Shīʿī graphical form of] the Mightiest Name of God, by Sayyid Kāẓim al-Husayni al-Rashtī (d. 1259/1843)." Online at http://www.hurqalya.pwp.blueyonder.co.uk/SHAYKHISM/Rashti..htm, accessed 18 January, 2012.

[90] Spoer, 1935, "Arabic Magic Medicinal Bowls," 244.

[91] Winkler, 2006, *Siegel und Charaktere*, p.89.

[92] E.g., online at http://en.wikipedia.org/wiki/South_Arabian_alphabet and http://www.ancientscripts.com/s_arabian.html, accessed 8 January, 2012.

[93] *Ibid*.

[94] Winkler, 2006, *Siegel und Charaktere*, p.195.

[95] A. Grohmann, 1915, "Göttersymbole und Symboltiere auf Südarabischen Denkmälern," *Denkschriften der Kaiserliche Akademie der Wissenschaften*, Phil.-His Kl. Bd. 58, Vienna (no pages given).

[96] Hehmeyer, 2008, "Water and Sign Magic," 90.

[97] Denis MacEoin, 1994, *Rituals in Babism and Baha'ism*.

[98] Online at http://www.peoplesoftheworld.org/text?people=Tuareg, accessed 4 February, 2009.

[99] From http://lbi-project.org/alph_mor.php and Jean-Baptiste Chabot, 1940, *Recueil des Inscriptions Libyques*, Imprimerie Nationale, Paris (online at http://lila.sns.it/mnamon/index.php?page=Simboli&id=47&lang=en&PHPSESSID=b974d3cf6307bd94f2a5c050964d1ac9). Both accessed 29 March, 2012.

[100] From http://www.ancientscripts.com/berber.html and http://www.win.tue.nl/~aeb/natlang/berber/tifinagh/tifinagh-mondeberbere.html, accessed 2 March, 2012.

[101] Lionel Galand, cited online at http://lbi-project.org/script.php, accessed 14 January, 2012.

[102] Pichler, Werner, 2007, "Origin and Development of the Libyco-Berber Script," *Berber Studies* Nr. 15, Rüdiger Köppe Verlag, Cologne. Cited online at http://lbi-project.org/script.php, accessed 14 January, 2012.

[103] Online at http://lbi-project.org/script.php and http://lbi-project.org/alph_mor.php, accessed 14 January, 2012; in the latter table the reading direction is given by the arrows at the bottom of each column.

[104] For example, the letter *h* in the horizontal version of Saharan Libyco-Berber is ||||, which requires no rotation to match the 5th Seal. See http://www.win.tue.nl/~aeb/natlang/berber/tifinagh/tifinagh-mondeberbere.html, accessed 14 January, 2012.

[105] Gabus, 1982, *Sahara,* p.235; Derek White, 2009, "So Long & Thanks for the Samaki: Last Will & Lament," online at http://www.5cense.com/EA/homeward.htm, accessed 19 March, 2012.

[106] In addition to the images in Fig. 9, a photograph of a small and mainly number-based "magic square" ring appears in Helene E. Hagan & Lucile C. Myers, 2006, *Tuareg Jewelry – Traditional Patterns and Symbols*, Xlibris, USA, p.83.

[107] Jean Gabus, 1982, *Sahara, Bijoux et Techniques*, La Baconnière, Neuchâtel, p.235.

[108] Hagan & Myers, 2006, *Tuareg Jewelry*, p.48.

[109] Marguerite Rigoglioso, 2007, "Out of the Sahara," *Stanford Magazine*, May/June issue, online at http://www.stanfordalumni.org/news/magazine/2007/mayjun/features/tuareg.html, accessed 15 January, 2012.

[110] E.A. Wallis Budge, 1978, *Amulets and Superstitions*, Dover, New York, p.458-459.

[111] Attilio Mastrocinque, 2002, "The Divinatory Kit from Pergamon and Greek Magic in Late Antiquity," *Journal of Roman Archaeology* 15, 173-187.

[112] Budge, 1978, *Amulets and Superstitions*, p.458-459; Mastrocinque, 2002, "The Divinatory Kit," 176; Gordon, 2002, "Another View," 190.

[113] *Ibid*.

[114] Mastrocinque, 2002, "The Divinatory Kit," 181-187.

[115] Gordon, 2002, "Another View,"191.

[116] Joshua Trachtenberg, 1939, *Jewish Magic and Superstition*, Behrman's Jewish Book House, New York, p.154.

[117] Gordon J. Hamilton, 2009, "A Proposal to Read the Legend of a Seal-Amulet from Deir Rifa, Egypt, as an Early West Semitic Alphabet Inscription," *Journal of Semitic Studies* 54 (1), 51-79, at 57, 64 & 68.

[118] William T. Pavitt & Kate Pavitt, 1922, *The Book of Talismans, Amulets and Zodiacal Gems*, 2nd edn., Rider & Son, London, p.65.

[119] For a thorough comparison of Egyptian and Greek attitudes to language and writing in relation to magic, and their merger in Late Antiquity, see Frankfurter, 1994, "The Magic of Writing and the Writing of Magic." From p.211: "Greek letters became hieroglyphs, [...] while Egyptian hieroglyphs could be 'spoken' in Greek; Egyptian priests claimed Greek vowel sounds as the divine inheritance of Thoth, while Greeks turned the same vowel sounds into the visual insignia of cosmic forces."

[120] Stefan Strelcyn, 1955, "Prières Magiques Éthiopiennes pour Délier les Charmes," *Rocznik Orientalistyczny* 18, Polska Akademia Nauk, Warszawa, p.xxviii fn 2.

[121] This section is taken from a scribal gloss in a later hand than the main text, but is considered part of the book. G.R.S. Mead, ed., 1896, *Pistis Sophia*, Theosophical Publishing Society, London, p.123-124.

[122] Winkler, 2006, *Siegel und Charaktere*, p.189-192.

[123] Canaan, 2004, "Decipherment," 162.

[124] For examples of talismanic ciphers with "runs of ones" see Kriss & Kriss-Heinrich, 1962, *Volksglaube im Bereich des Islam*, vol. 2, p.131-136.

[125] Conversely, synthetic "words" designed to sum to specific values are used for significant numbers; both Canaan and Doutté remark on the letter-string ايقغ ("AIQGh") which corresponds to 1+10+100+10000 = 1111. See Canaan, 2004, "Decipherment," 148; Doutté, 1908, *Magie et Religion*, p.189.

[126] Michal Moroz, "Magic Squares in the Works of Ahmad Al-Buni," *World Congress for Middle Eastern Studies*, Barcelona, July 19th - 24th 2010, Panel 9115 - Medieval Science and Magic Squares; online at http://wocmes.iemed.org/en/new-panel-9115-medieval-science, accessed 9 September, 2010.

[127] It is currently in the Xian museum in Shaanxi; see online (accessed 2 January, 2012) at http://www.flickr.com/photos/brianritchie/822073289/in/pool-magic-square/ and http://www.flickr.com/photos/brianritchie/1182592961/in/set-72157600784088973/. Compare with the smaller example in Canaan, 2004, "Decipherment," 163 (Fig. 25).

[128] Doutté, 1908, *Magie et Religion*, p.202.

[129] Canaan, 2004, "Decipherment," 163.

[130] Canaan, 2004, "Decipherment," 161.

[131] Rudolf Kriss & Hubert Kriss-Heinrich, 1962, *Volksglaube im Bereich des Islam*, vol. 2 (*Amulette, Zauberformeln und Beschwörungen*), Otto Harrassowitz, Wiesbaden, p.80.

[132] Elliott, 1869, "Memoirs."

[133] Dawkins, 1944, "The Seal of Solomon."

[134] J. McG. Dawkins, 1944, "The Seal of Solomon," *Journal of the Royal Asiatic Society of Great Britain and Ireland* 76, 145-150.

[135] A *mans* is about 8 lbs or 3.6 kg

[136] James Tod, 1920, *Annals and Antiquities of Rajastan, or the Central and Western Rajput States of India*, vol. 1, ed. William Crooke, Oxford University Press, London, p.383.

[137] Henry M. Elliott, 1869, *Memoirs on the History, Folk-Lore, and Distribution of the Races of the North Western Provinces of India; Being an Amplified Edition of the Original Supplemental Glossary of Indian Terms*, vol. 2, ed. John Beames, Trübner & Co., London, p.68-69 fn.

[138] Online at http://vedabase.net/cc/madhya/19/138/en1, http://www.veda.harekrsna.cz/planetarium/human.htm and http://vedabase.net/sb/2/3/2-7/; accessed 12 February, 2012.

[139] Online at http://www.sikhiwiki.org/index.php/Chaurasi_Lakh_Joon_Upai,_The_8.4_Million_Lifetimes, accessed 12 February, 2012.

[140] Online at http://en.wikipedia.org/wiki/Dharma_(Buddhism), accessed 1 March, 2012.

[141] Online at http://en.wikipedia.org/wiki/Mahasiddha#The_84_Mahasiddhas, accessed 12 February, 2012.

[142] R.V. Russell, 1916, *Tribes and Castes of the Central Provinces of India*, vol. 2, McMillan & Co., London, p.395.

[143] Dawkins, 1944, "The Seal of Solomon," 148.

[144] Dawkins, 1944, "The Seal of Solomon," 149.

[145] Elliott, 1869, "Memoirs."

[146] In this scheme, the Chitor and Nagar deaths in the 16th-17th centuries CE come much too late to explain the original importance of the number, and – in agreement with Dawkins' own opinion – can only be belated secondary attempts to justify its ongoing use in India.

[147] The concept of a Hindu influence on the Seven Seals will be explored in a forthcoming paper.

[148] E.g., Nitin Kumar, 2001, "Om - An Inquiry into its Aesthetics, Mysticism, and Philosophy," online at http://www.exoticindiaart.com/om.htm, accessed 12 February, 2012.

[149] E.g., Stephen Knapp, "Basic Points About Vedic Culture/Hinduism: A Short Introduction, Part 2," online at http://www.stephen-knapp.com/basic_points_about_vedic_culture_hinduism.htm, accessed 12 February, 2012.

[150] D.C. Sircar, 1996 (reprint), *Indian Epigraphy* (*Epigraphy, Palaeography, Numismatics*, vol. 10), Motilal Banarsidass Publishing, Delhi, p.92-93.

[151] Ajay Mitra Shastri, 1995, *Inscriptions of the Śarabhapurīyas, Pāṇḍuvaṁśins, and Somavaṁśins*, vol. 1 (Introduction), ed. Indian Council of Historical Research, Motilal Banarsidass Publishing, Delhi, p.17.

[152] Sircar, 1996, *Indian Epigraphy*, p.93 fn 2.

[153] Boeles, 1947, "The Migration of the Magic Syllable OM."

[154] Sircar, 1996, *Indian Epigraphy*, p.93; J.J. Boeles, 1947, "The Migration of the Magic Syllable OM," In: *India Antiqua*, ed. Ludwig Bachhofer, Brill, Leiden, p.40-56.

[155] Scholem, 1949, "The Curious History of the Six Pointed Star."

[156] Winkler, 2006, *Siegel und Charaktere*, p.151-180.

[157] Winkler, 2006, *Siegel und Charaktere*, p.153 & 176-178; reiterated in English by Hehmeyer, 2008, "Water and Sign Magic," 87-88.

[158] Lloyd D. Graham, 2012, "Repeat-Letter Ciphers"

[159] Stevenson, 1920, "Some Specimens of Moslem Charms," 114.

[160] Alice Grenfell, 1902, "The Iconography of Bes, and of Phoenician Bes-Hand Scarabs," *Proceedings of the Society of Biblical Archaeology* 24, 37 & Fig. 64 relate to an ancient Bes-hand porcelain scarab that shows an enlarged hand with four fingers and no thumb.

[161] Winkler, 2006, *Siegel und Charaktere*, p.180-183.

[162] Winkler, 2006, *Siegel und Charaktere*, p.115 & 180-184.

[163] Winkler, 2006, *Siegel und Charaktere*, p.183

[164] H.C. Youtie & Campbell Bonner, 1937, "Two Curse Tablets from Beisan," *Transactions and Proceedings of the American Philological Association* 68, 43-77, at 66.

[165] Mastrocinque, 2002, "The Divinatory Kit from Pergamon," 175.

[166] Winkler 2006, *Siegel und Charaktere*, p.186. In the Tannaitic era, *Shemhamforash* referred to the Tetragrammaton.

[167] Winkler 2006, *Siegel und Charaktere*, p.105, 180 & 191.

[168] Winkler 2006, *Siegel und Charaktere*, p.187.

[169] Hehmeyer, 2008, "Water and Sign Magic," 90.

[170] Muhyiddin Ibn ʿArabī, 2008, *The Seven Days of the Heart: Prayers for the Nights and Days of the Week*, trans. Pablo Beneito & Stephen Hirtenstein, Anqa Publishing, Oxford, p.119.

[171] Canaan, 1936, "Arabic Magic Bowls," 95.

[172] Spoer, 1935, "Arabic Magic Medicinal Bowls," 242.

[173] On a related note, Stevenson reports that Seligman tentatively identified the *hāʾ* and *wāw* with the last syllable of the Divine name *yāhū*; Stevenson, 1920, "Some Specimens of Moslem Charms," 113.

[174] Schäfer, P., 1992, *The Hidden and Manifest God: Some Major Themes in Early Jewish Mysticism*, SUNY Press, New York, p.80.

[175] Isaiah Horowitz, 1996, *The Generations of Adam*, ed. & trans. Miles Krassen, Paulist Press, New York p.68.

[176] Winkler, 2006, *Siegel und Charaktere*, p.153 & 176-178; Hehmeyer, 2008, "Water and Sign Magic," 87-88.

[177] Winkler, 2006, *Siegel und Charaktere*, p.189-192.

[178] Winkler, 2006, *Siegel und Charaktere*, p.105 provides a translation of al-Būnī's attributions.

[179] Margaret Smith, 1931, "Review," thinks the *huwa* explanation equally or more plausible. Hehmeyer, 2008, "Water and Sign Magic," 90, does not consider Winkler's idea about *alpha* and *omega* worthy of mention.

[180] Brent Nongbri, 2011, "The Lord's Prayer and XMΓ: Two Christian Papyrus Amulets," *Harvard Theological Review* 104, 59-68.

[181] Nadine Quenouille, 2008, "Greek Papyri in Byzantine and Early Arabic Times: Dating Methods for Greek Papyri," 2nd International Summer School in Coptic Papyrology, Leipzig (27 July - 3 August, 2008), online at http://nadine-quenouille.de/vortraege/css.pdf, accessed 2 March, 2012.

[182] Winkler, 2006, *Siegel und Charaktere*, p.192-193.

[183] Kriss & Kriss-Heinrich, 1962, *Volksglaube im Bereich des Islam*, vol. 2, p.80, disagree with Winkler's proposal. Hehmeyer, 2008, "Water and Sign Magic," 89, does not consider it worthy of mention.

[184] Winkler, 2006, *Siegel und Charaktere*, p.105 provides a translation of al-Būnī's attributions.

[185] Winkler, 2006, *Siegel und Charaktere*, p.193-194.

[186] Winkler, 2006, *Siegel und Charaktere*, p.194

[187] Canaan, 2004, "Decipherment," 145.

[188] Winkler, 2006, *Siegel und Charaktere*, p.105 provides a translation of al-Būnī's attributions.

[189] Carl G. Liungman, 1991, Dictionary of Symbols, W.W. Norton & Co, London/New York, p.12 & 298.

[190] "Raphael,"2012, "7 Mystical Seals – Phosphenes – Rock Art Symbols – Giordano Bruno – Hans Jenny – Ernest Chladni," blog post to Alternative Thinking 37, 6 Feb 2012, online at http://at37.wordpress.com/2012/02/06/phosphenes/, accessed 8 March, 2012.

[191] Rhoda Kellogg, M. Knoll, & J. Kugler, 1965, "Form-Similarity between Phosphenes of Adults and Pre-school Children's Scribblings," *Nature* 208, 1129-1130.

[192] *Ibid*.

[193] Ben Watson, 2008, "Oodles of Doodles?: Doodling Behaviour and its Implications for Understanding Palaeoarts," *Rock Art Research* 25 (1), 35-60.

[194] Ronald K. Siegal, 1977, "Hallucinations," *Scientific American* 237, 132-140.

[195] J. David Lewis-Williams, 2001, "Brainstorming Images: Neuropsychology and Rock Art Research," In: *Handbook of Rock Art Research*, ed. D.S. Whitley, AltaMira Press/Rowman & Littlefield, CA, 332-357.

[196] J. David Lewis-Williams & T.A. Dowson, 1988, "The Signs of All Times: Entoptic Phenomena in Upper Palaeolithic Art," *Current Anthropology* 29, 201-245.

[197] Richard Bradley, 1989, "Deaths and Entrances: A Contextual Analysis of Megalithic Art, *Current Anthropology* 30, 68-75.

[198] Eric Pettifor, 1996, "Altered States: The Origin of Art in Entoptic Phenomena," online at http://www.wynja.com/arch/entoptic.html, accessed 28 March, 2012.

[199] Ana E. Iribas, 1999, "Phosphenes in Art," In: *Toward a Science of Consciousness: Fundamental Approaches*," Tokyo: United Nations University, p. A42-A43.

[200] Ana E. Iribas, 2000, "Stars, Stripes, etc.: Entoptic Phenomena in Art," (Consciousness Research Abstracts, Tucson 2000) in: *Toward a Science of Consciousness*, Center for Consciousness Studies & Journal of Consciousness Studies, Tucson, p. 161-162.

[201] Derek Hodgson, 2006, "Understanding the Origins of Paleoart: The Neurovisual Resonance Theory of Brain Functioning," *PaleoAnthropology* 2006, 54-67.

[202] Rhawn Joseph, 2003, "Palaeolithic Spiritual Evolution: Death, the Frontal Lobe, Spiritual Symbolism," In: *NeuroTheology: Brain, Science, Spirituality, Religious Experience*, ed. Rhawn Joseph, University Press, San Jose, California, p.315-358, at p.343.

[203] Gerald Oster, 1970, "Phosphenes," *Scientific American* 222 (2), 83-87.

[204] Kellogg *et al*., 1965, "Form-Similarity between Phosphenes."

[205] James B. Harrod, 2008, "From Doodles to Semiosis," *Rock Art Research* 25 (1), 49-51.

[206] Spoer, "Arabic Magic Medicinal Bowls," 239.

[207] "Raphael," 2012, "7 Mystical Seals," online at http://at37.wordpress.com/2012/02/06/phosphenes/, accessed 28 March, 2012.

[208] E.g., Shan M.M. Winn, *Pre-writing in Southeastern Europe: The Sign System of the Vinca Culture, ca. 4000 B.C.*, Western Publishers, Calgary.

[209] E.g., Online at http://english.people.com.cn/90001/90782/90874/6625554.html, http://v.cctv.com/html/media/cultureexpress/2009/03/cultureexpress_300_20090326_4.shtml.

[210] E.g., Robert A.S. Macalister, 1937, *The Secret Languages of Ireland*, Cambridge University Press, p.27-36.

[211] Christopher Josiffe, 2011, "Origins of Writing: Magic or Accountancy?," online at http://independent.academia.edu/ChristopherJosiffe/Papers/1531450/Origins_of_writing_magic_or_accountancy.

[212] Online at http://www.time.com/time/arts/article/0,8599,1204491,00.html, http://www.iman-abdullah-mahmud.com/english.php and http://www.artreview.com/profile/ImanMahmud, accessed 7 September, 2011.

[213] Fred Gettings, 1981, *Dictionary of Occult, Hermetic and Alchemical Sigils*, Routledge & Keegan Paul, London.

[214] E.g., Figs. 14-15 in Kriss & Kriss-Heinrich, 1962, *Volksglaube im Bereich des Islam*, vol. 2.

[215] I have touched upon some of their associations in an earlier paper: Lloyd D. Graham, 2011, Qurʾānic Spell-ing: Disconnected Letter Series in Islamic Talismans. Online at https://www.academia.edu/516626/Qur%CA%BE%C4%81nic_Spell-ing_Disconnected_Letter_Series_in_Islamic_Talismans.